**Design & Code :-**



#include<stdio.h>

#include<conio.h>

typedef struct stu

{

int book\_id,isbn;

char book\_nm[100],auth\_nm[100],publ[100],edt[20],dt\_isu[30];

struct stu \*next;

}stu1;

stu1 \*start;

void create(stu1 \*);

void display(stu1 \*);

void dele\_any();

void dele1st();

void delelst();

stu1 \* ins1st();

void inslst();

void insmid();

void search();

void main()

{

int i=0;

clrscr();

start=(stu1 \*)malloc(sizeof(stu1));

do

{

printf("1. Create\n");

printf("2. Display\n");

printf("3. Insert data at first\n");

printf("4. Insert data at last\n");

printf("5. Insert data at middle\n");

printf("6. Delete first row\n");

printf("7. Delete last row\n");

printf("8. Delete from middle\n");

printf("9. Exit\n");

printf("Enter your choice :- ");

scanf("%d",&i);

switch(i)

{

case 1:

create(start);

break;

case 2:

display(start);

break;

case 3:

start=ins1st();

break;

case 4:

inslst();

break;

case 5:

insmid();

break;

case 6:

dele1st();

break;

case 7:

delelst();

break;

case 8:

dele\_any();

break;

case 9:

exit(0);

}

}while(1);

}

void create(stu1 \*node)

{

char ans='y';

clrscr();

node->next=(stu1 \*)malloc(sizeof(stu1));

printf("\nEnter book id :- ");

scanf("%d",&node->book\_id);

printf("\nEnter book's name :- ");

fflush(stdin);

gets(node->book\_nm);

printf("\nEnter author's name :-");

fflush(stdin);

gets(node->auth\_nm);

printf("\nEnter publication's name :- ");

fflush(stdin);

gets(node->publ);

printf("\nEnter edition :- ");

fflush(stdin);

gets(node->edt);

printf("\nEnter date :- ");

fflush(stdin);

gets(node->dt\_isu);

printf("\nEnter isbn no :- ");

scanf("%d",&node->isbn);

printf("\nDo you want to continue (Y/N)? ");

fflush(stdin);

ans=getchar();

if(ans=='y' || ans=='Y')

{

node->next=(stu1 \*)malloc(sizeof(stu1));

create(node->next);

}

else

node->next=NULL;

}

void display(stu1 \*node)

{

int no=0;

//node=start->next;

while(node)

{

printf("Book id :- %d Book Name :- %s Author's Name :- %s Publication :- %s Edition :- %s Date :- %s ISBN :- %d\n",node->book\_id,node->book\_nm,node->auth\_nm,node->publ,node->edt,node->dt\_isu,node->isbn);

node=node->next;

no++;

}

}

void dele\_any()

{

stu1 \*prev,\*node;

int no=1,nod=0;

prev=start;

node=start->next;

printf("\n\nEnter position no for delete operation :- ");

scanf("%d",&nod);

while(node)

{

if(no==nod-1)

{

prev->next=node->next;

free(node);

break;

}

prev=prev->next;

node=node->next;

no++;

}

printf("%d position number recorded deleted",nod);

getch();

}

void dele1st()

{

stu1 \*node;

node=start;

start=node->next;

free(node);

printf("First record deleted\n");

getch();

return start;

}

void delelst()

{

stu1 \*prev, \*node;

prev=start;

node=start;

while(node)

{

if(node->next==NULL)

{

prev->next=node->next;

free(node);

break;

}

else

{

prev=node;

node=node->next;

}

}

printf("Last record deleted...");

getch();

}

stu1 \* ins1st()

{

stu1 \*node,\*new1;

node=start;

new1=(stu1 \*)malloc(sizeof(stu1));

new1->next=node;

printf("\nEnter new book id :- ");

scanf("%d",&new1->book\_id);

printf("\nEnter new book's name :- ");

fflush(stdin);

gets(new1->book\_nm);

printf("\nEnter author's name :-");

fflush(stdin);

gets(new1->auth\_nm);

printf("\nEnter publication's name :- ");

fflush(stdin);

gets(new1->publ);

printf("\nEnter edition :- ");

fflush(stdin);

gets(new1->edt);

printf("\nEnter date :- ");

fflush(stdin);

gets(new1->dt\_isu);

printf("\nEnter isbn no :- ");

scanf("%d",&new1->isbn);

start=new1;

return start;

}

void inslst()

{

}

void insmid()

{

stu1 \*prev, \*node, \*new1;

int no=0, p=0;

prev=start;

node=start->next;

printf("\nEnter position no :- ");

scanf("%d",&p);

while(node)

{

no++;

if(no==p)

{

new1=(stu1 \*)malloc(sizeof(stu1));

printf("\nEnter new book id :- ");

scanf("%d",&new1->book\_id);

printf("\nEnter new book's name :- ");

fflush(stdin);

gets(new1->book\_nm);

printf("\nEnter author's name :-");

fflush(stdin);

gets(new1->auth\_nm);

printf("\nEnter publication's name :- ");

fflush(stdin);

gets(new1->publ);

printf("\nEnter edition :- ");

fflush(stdin);

gets(new1->edt);

printf("\nEnter date :- ");

fflush(stdin);

gets(new1->dt\_isu);

printf("\nEnter isbn no :- ");

scanf("%d",&new1->isbn);

new1->next=node;

prev->next=new1;

break;

}

else

{

prev=prev->next;

node=node->next;

}

}

}

void search()

{

}